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Title of Project: Developing a Master Preservation Plan for the World's Largest Hawaiian and Pacific Archaeology Collections

Name of Project Director: Charmaine Wong

Name of Grantee Institution: Bernice P. Bishop Museum

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Narrative Description

Project Summary

In 2016 the Anthropology Department at Bishop Museum received a planning grant from the National Endowment for the Humanities (NEH) Sustaining Cultural Heritage Collections grant program to assemble a team of skilled professionals to assist with the development of a Master Preservation Plan (MPP) for the museum's Archaeology Collections. Currently, the Archaeology Collections are the only collections within the Anthropology Department.

The Archaeology Collections are held in two separate buildings – Konia Hall and Bishop Hall, with a portion of the archival material held within Paki Hall in the Library & Archives Department. Konia Hall houses the main collections storage and work spaces, including more environmentally sensitive materials such as organic artifacts and samples as well as half of the Anthropology Department's archives. Bishop Hall holds the remaining collections of artifacts and samples.

The primary goal of this grant was to develop an integrated preservation plan for the Archaeology Collections that would provide guidance for the care and preservation of the collections, the appropriate and efficient use of space, and the capacity of the historic buildings and their systems to properly accommodate collections. The planning grant brought together Linda Hee, a conservator, William Chapman, a historic preservation specialist, and Keith Chan and TJ Watanabe, mechanical engineers from Notkin Hawaii, Inc. The consultants worked with Bishop Museum collections and facility staff members including the Director of Buildings and Grounds, the Archaeology Collections Manager, and the Collections Management Working Group (CM-WG). Hee and Chapman each provided reports containing their assessments and recommendations while Chan and Watanabe created HVAC/AHU plans. An implementation fund of \$10,000 was included in the grant and was utilized to address essential preservation deficiencies.

Project Activities

Before the project began in October 2016, upon receipt of the grant award notification and subsequent participation confirmation from the consultants, the Project Director provided the consultants with an information packet (Appendix A) before meeting with the various consultants. All of the consultants participated as planned and the Project Director conducted several meetings with the individual consultants rather than the entire group as a whole. Separate meetings were most desirable due to scheduling conflicts and the fact that not all project members and consultants were required for each meeting or site visit walkthrough. Each meeting was tailored to each consultant's portion of the project – Chapman evaluated and photographed both the interior and exterior of each building, Hee looked at collections and collected samples within the collections storage and work areas, and Watanabe worked closely with the Director of Buildings and Grounds to assess ductwork placement and electrical capacity. The Project Director also worked with the CM-WG to collect more data (window photographs, surface heat readings, etc.) for the consultants. This work resulted in two reports and HVAC/AHU plans. The reports from the consultants were carefully evaluated by museum staff members to determine the priority and practicality of the recommendations contained within the reports, and following review, there were a few recommendations that were deemed to be contradictory and/or not practical for the museum to implement.

A portion of the grant funds (\$10,000) were set aside to implement essential preservation activities. Following discussions regarding the consultant recommendations and museum staff collections priorities, we decided to attempt to address issues of visible light (LUX), ultraviolet radiation (UV), and heat/infrared radiation (IR) intrusion within the main collection storage spaces and work areas in Konia Hall. This decision was influenced by the MPP's focus on creating and implementing both short- and long-term plans for collections stewardship and management through sustainable passive and active measures that fall within reasonable resource and capacity limits.

Changes in the Project

Project activities did not follow the original project timeline. The project time period was extended by six months to accommodate several unforeseen delays connected to various project activities due to the logistical issues of being located in Hawaii. However, the longer timeframe allowed museum staff to gather more data and plan for the implementation portion of the project. Apart from these delays, there was one change in key project personnel during the project – the Registrar, part of the CM-WG, left her position at the museum and was replaced by the new Registrar. The change in personnel occurred before the project began and did not affect project performance.

Publicity

Publicity for the project while it was in progress was minimal, as the activities were primarily occurring within collections areas and work spaces. The receipt of the grant and its purpose were shared with museum staff at the regularly scheduled quarterly all-staff meeting when the grant was first received. The continuous progress of the project was shared at monthly Cultural Resources Division meetings as well as at various smaller collections-related staff meetings.

Efforts to publicize the results of the project are ongoing. The Project Director will be presenting the project results at the Society for Hawaiian Archaeology Annual Meeting in Hilo, Hawaii Island, on October 6th and 7th 2018. Additionally, the Project Director intends to present results from the project at the 2019 Western Museum Association meeting and the 2019 Hawaii Museums Association conference should the abstracts be accepted. There is a possibility that the project will be featured in the museum's quarterly journal and online newsletter to be shared with our stakeholders, members, and museum guests.

Project Accomplishments

Generally, the project occurred as originally envisioned. Museum staff created an information packet for the consultants to review. All three consultants visited the museum several times individually to conduct physical evaluations of the collections and buildings as well as to collect samples and measurements. Following the various meetings and site visits, the consultants prepared draft reports for their respective areas of expertise, which informed the next steps of implementation as well as provided information for the creation of the MPP. The final reports are listed below:

1. Historic Preservation Considerations, William Chapman (Appendix B)
2. Conservation Assessment of the Archaeology Collections, Linda Hee (Appendix C)
3. Air Conditioning at Konia Hall Mechanical Drawings, Notkin Hawaii, Inc. (Appendix D)

William Chapman's report provides a detailed look at the historic buildings housing the collections and includes recommendations for improving the building envelopes. Linda Hee's report takes into account the

1989 and 2012 museum-wide conservation assessments to compare items that have been addressed from those assessments and contains recommendations for preserving the collections. The HVAC/AHU plans by Notkin Hawaii, Inc. have been drafted to bid point for when museum procures the funding to implement the plans.

Following the draft report submissions, museum staff worked to implement reasonable solutions that address issues of LUX, UV, and IR intrusion within the main collection storage spaces and work areas within Konia Hall. Utilizing the implementation funding, museum staff were able to successfully complete the activities below:

1. Tinting 37 historic windows in Konia Hall to reduce LUX, UV, and IR.
2. Replacing a combination of plywood, blinds, and gator board in 15 windows and solid plywood sheets in 13 windows with rigid insulation sheets and Sintra to further reduce or eliminate LUX, UV, and IR issues.
3. Installing dual roller shades in 5 windows within the Anthropology Laboratory to reduce LUX, UV, and IR when collections are in the lab.

Quantitative measures from initial monitoring of the affected spaces indicated improved conditions in all spaces that were improved through implementation measures that were applied as part of this project (Appendix E).

Audiences

The direct audience for the project is mainly internal. The project enhances and contributes to the overall MPP which could be used as a model for the museum's eight other collections at the museum – Ethnology, Library & Archives, Malacology, Ichthyology, Entomology, Vertebrate Zoology, Invertebrate Zoology, and Botany. While the eight collections are incredibly diverse and require different collections management strategies, the environmental and storage conditions are very similar to those of the Archaeology Collections. The project and resulting report can also be used to inform senior management and the museum's Board of Directors during strategic planning for the Archaeology Collections, as well as other collections areas across the museum.

Beyond the internal audience, all improvements in preservation and management within the Archaeology Collections that have resulted from this project positively impact the experiences of all collections visitors, including community members, scholars, interns, and volunteers. Through the project and the MPP, Anthropology staff members are able to facilitate better access to the collections and information within the main collections storage and work areas. Additionally, the Project Director will reach out to the local and regional archaeology and museum communities through presentations at conferences in 2018 and 2019. Through the museum's quarterly journal and newsletter, the project's audience extends to include the museum's stakeholders, members, and museum guests.

Evaluation

The project was not formally evaluated, but we solicited feedback from various members of the CM-WG and staff members throughout the project.

Over the course of the project, some portions of the original work plan were altered due to scheduling conflicts and delays so flexibility and creative thinking was required to complete certain sections of the work in smaller phases. We were not able to get all the consultants and core staff members together for the initial full-day on-site assessment. Instead, individual meetings and site visits specific to their portion

of the grant were much more manageable. While the one-on-one visits were very productive, the individual focus did result in reports that were incredibly detailed to the consultant's specialty but less holistic than originally envisioned. There are some recommendations in the consultant reports that are contradictory as well as recommendations that are not necessarily practical for the collections or within the museum's current resources to implement in the short-term. Both Hee's and Chapman's reports have good justifications for the recommendations based on different professional perspectives and are incredibly applicable. However, the recommendations are dependent on circumstances and budget, and may not be achievable in Hawaii, where we are faced with the challenge of caring for collections in a tropical environment and do not have access to some supplies. For example, Hee's report prefers window air conditioners over a central air conditioning system while Chapman's report suggests that a central air conditioning system would be ideal with a split air conditioning system replacing the window air conditioners in the short term. An example of a recommendation that was not within our current resources was from the Chapman report which suggested installing interior window inserts with filters to address UV issues. However, the cost of the window inserts, shipping to Hawaii, and installation was prohibitive for the 37 oversized historic windows in Konia Hall and would far exceed the \$10,000 implementation fund. As a result, we had to find a solution that would work with the available resources and budget (see Appendix 5 for the implementation report and initial results).

Implementation was challenging due to time constraints and budgetary restrictions. We would have preferred to have more time and resources available to test the effectiveness of some materials before deciding on one material over another. However, since the margin for trial and error was very slim and due to the nature of our location, material availability, and shipping restrictions, we had to be creative in implementing recommendations and take a risk in ordering the final materials in bulk without being able to test the efficacy of the materials over a reasonable period of time.

Continuation of the Project

This project is the first portion of a Master Preservation Plan that not only includes short- and long-range plans but also expands to encompass a re-evaluation of all policies, procedures, and plans related to collections management and preservation within the Anthropology Department. The expansion and maintenance of the MPP is intended to be an ongoing process with yearly updates and assessments that will allow museum staff to track progress and document achievements. As such, the MPP submitted with this final report will continue to develop and change in the coming months and years.

The goal of this first phase was to evaluate the collections and the historic buildings housing them to come up with recommendations and plans that would allow museum staff to improve the overall preservation of the collections. The reports generated from this project are essential as we move forward to expand and continuously update the MPP. The grant and resulting work occurred at a pivotal point for the museum as we undergo planning processes for strategic and interpretive master plans. The MPP provides Anthropology staff members with a deeper understanding of what needs to be done to achieve a more professional standard of collections care and management while being mindful of the preservation requirements of the museum's historic buildings. The MPP and consultant reports provide additional evidence for the necessity of the subsequent phases of the MPP's short- and long-range plans, and will be used to increase buy-in from stakeholders and allow staff to apply for further funding.

The next phase of the MPP will focus on completing the priority tasks by breaking them into smaller, more manageable projects, such as raising funds for a HVAC/AHU system for Konia Hall, renovating and installing collections furniture in newly identified spaces, making improvements in current storage areas, and undertaking additional collections reorganization.

Long Term Impact

The MPP is a long-range plan which is projected to guide department staff in addressing collections management and preservation priorities for the next 10-20 years. The long-term impacts of the Sustaining Cultural Heritage Collections grant are significant as the final products provide frameworks for collections preservation and management, environmental planning, and informs the museum's overall strategic plan on the needs and issues of the Archaeology Collections. The MPP provides a framework for decision-making that is financially and environmentally sustainable within the museum's organizational culture. The project has generated an awareness of collection management gaps and the steps needed to correct or improve them. The recommendations contained within the report will be used to attract additional federal and non-federal financial support for the ongoing care of the Archaeology Collections, as they provide achievable strategies to improve collections preservation for the future.

Award Products

The primary product of the grant is a Master Preservation Plan for the Archaeology Collections that will provide current and future museum staff members with guidelines, recommendations, and next steps for the improved care and stewardship of these collections (Appendix F). The grant also produced two specialist reports and HVAC/AHU plans for the main laboratory and collections storage area which are included in the appendices.